

Silicon Switching Diode

**1N4454,
1N4454-1**

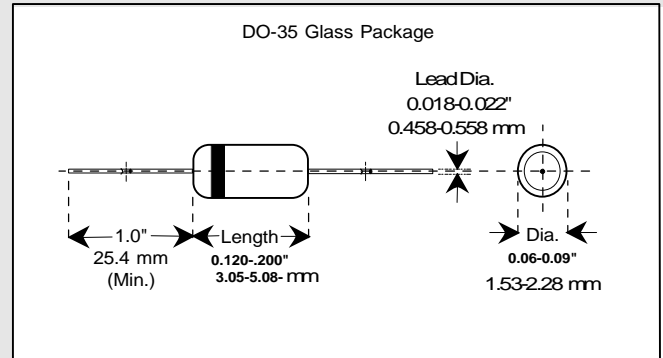
DO-35 Glass Package

Applications

Used in general purpose applications, where performance and switching speed are important.

Features

- Six sigma quality
- Metallurgically bonded
- BKC's Sigma Bond™ plating for problem free solderability
- LL-34/35 MELF SMD available
- Full approval to Mil-S-19500 /144
- Available up to JANTXV-1 levels
- "S" level screening available to Source Control Drawings



Maximum Ratings	Symbol	Value	Unit
Peak Inverse Voltage @ 5µA & 0.1µA @ -55°C	PIV	75 (Min.)	Volts
Average Rectified Current	I_{Avg}	200	mAmps
Continuous Forward Current	I_{Fdc}	300	mAmps
Peak Surge Current ($t_{peak} = 1 \text{ sec.}$)	I_{peak}	1.0	Amp
Power Dissipation $T_L = 50 \text{ }^\circ\text{C}$, $L = 3/8"$ from body	P_{tot}	500	mWatts
Operating Temperature Range	T_{Op}	200	$^\circ\text{C}$
Storage Temperature Range	T_{St}	-65 to +200	$^\circ\text{C}$
Electrical Characteristics @ 25°C*	Symbol	Limits	Unit
Forward Voltage @ $I_F = 10 \text{ mA}$	V_F	1.0(max)	Volts
Breakdown Voltage @ $I_R = 5 \text{ }\mu\text{A}$	PIV	75 (min)	Volts
Reverse Leakage Current @ $V_R = 50 \text{ V}$	I_R	0.1 (max)	μA
Reverse Leakage Current @ $V_R = 50 \text{ V}$, $T = 150 \text{ }^\circ\text{C}$	I_R	100 (max)	μA
Capacitance @ $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_T	2.0 (max)	pF
Reverse Recovery Time (note 1)/(note 2)	t_{rr}	2.0/4.0 (max)	nSecs
Forward Recovery Voltage (note 3)	V_{fr}	3.0 (max)	Volts

Note 1: Per Method 4031-A with $I_F = I_R = 10 \text{ mA}$, $R_L = 100 \text{ Ohms}$, $C = 3 \text{ Pf}$.

Note 2: Per Method 4031-A with $I_F = 10 \text{ mA}$, $R_L = 100 \text{ Ohms}$, $V_r = 6 \text{ V}$, Recover to 1.0 mA.

Note 3: Per Method 4026 with $I_F = 100 \text{ mA}$, $R_L = 50 \text{ Ohms}$, Peak Square wave, 100 nSec Pulse Width, $t_r < 30 \text{ nSec}$, repetition Rate = 5 - 100 KHz.

* Unless Otherwise Specified

DO-35 DERATING (175 C Tj)

